

ROUNDING NUMBERS



Foundations
of Algebra

WHO ROUNDS NUMBERS?

■ The Box Office!

This Week	Movie Title	Weekend Gross
1	Ice Age: Continental Drift	\$46.63M
2	The Amazing Spider-Man	\$34.63M
3	Ted	\$22.41M
4	Brave	\$11.16M
5	Savages	\$9.39M
6	Magic Mike	\$9.02M
7	Tyler Perry's Madea's Witness Protection	\$5.58M
8	Katy Perry: Part of Me	\$3.80M

We can be pretty sure that it wasn't exactly 3.8 million people that went to see Katy Perry: Part of Me, but that is a lot easier to say than 3,823,473 people. Did you go see that movie?

WHY DO WE ROUND NUMBERS?

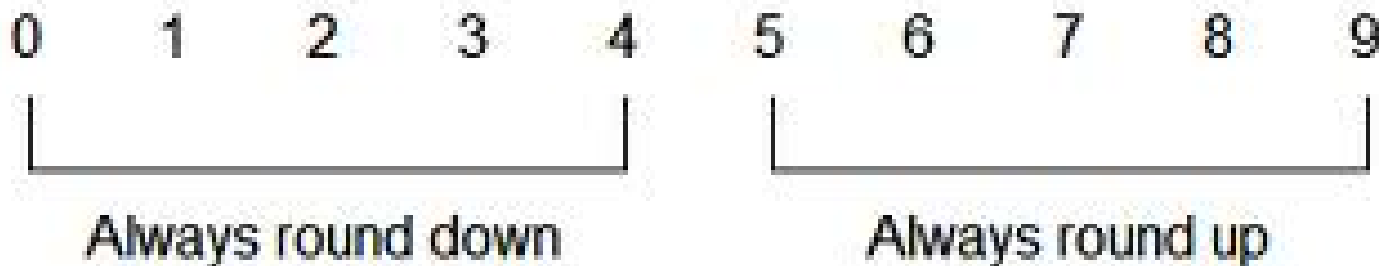
- Rounding numbers is a good way to **estimate** how much of something you have.
- Rounded numbers are not exact, but they are **close!**
- Rounding is often a good way to make a long number into a short number to **read**.
- A rounded number is less accurate but is **easier** to use.

HOW DO WE ROUND NUMBERS?

- The most important thing to look for when rounding numbers is the **place** you want to round to.... Tens? Hundreds? Tenths?
- For example, if we wanted to round 863.7 there are several options.
 - To the nearest whole number? (ones) 864
 - To the nearest tens? 860
 - To the nearest hundred? 900

WHAT IS THE RULE?

- If the number **to the right** of your place value ends in a 0, 1, 2, 3, or 4, we always round **down**.
- If the number **to the right** of your place value ends in a 5, 6, 7, 8, or 9, we always round **up**.



NOT SURE WHICH WAY TO ROUND?

- Use the car method!
- If your number is 74 and you want to round it to the nearest tens. Choose the closest ten on each side: 70 and 80. **Which number is 74 closest to? 70!!**
- What if the car is stuck at the top of the hill (at 75)? Remember, the engine weighs more than the trunk, so the car will roll down to the higher number.



PRACTICE

- Click on the following website to practice some rounding.

[Rounding Practice](#)

ROUNDING IN THE REAL WORLD

- You recently got a job in public relations working for the National Park Service (NPS). Your first job is to do a press release for the Everglades National Park, which is located in Florida.
- Here is some of your research:
 - **The Everglades National Park gets an average of 59.10 inches of rainfall a year. It had 1.181351 million visitors in 2004, and its budget for 2003 was \$13.958 million.**



ROUNDING IN THE REAL WORLD

- The Everglades National Park gets an average of 59.10 inches of rainfall a year. It had 1.181351 million visitors in 2004, and its budget for 2003 was \$13.958 million.
- How much rain does the Everglades National Park receive each year rounded to the nearest inch?
- How many visitors did the park have rounded to the nearest tenth of a million?
- How many visitors did the park have rounded to the nearest ten-thousandth of a million?
- What is the budget to the nearest million?
- What is the budget to the nearest hundredth of a million?

ROUNDING IN THE REAL WORLD

- Rewrite your press release using the new rounded numbers so that it is easier to read.

The Everglades National Park gets an average of 59 inches of rainfall a year. It had 1.2 million visitors in 2004, and its budget for 2003 was \$14 million.

